Author index

Afable, C., see Mills, C.K.
Ampon, K., see Samad, M.Y.A., 51
Avila, M.K., Moriñigo, M.A., Cornax, R., Romero, P. and Borrego, J.J., Comparative study of coliform-enumeration media from seawater samples, 175
Awerbuch, T.E., Lustman, L. and Piret, J.M., A numerical method to determine minimal inhibitory concentrations (MICs) of antibiotics directly from disc-diffusion susceptibility tests, 1

Bai, Q.Y., Zelles, L., Scheunert, L. and Korte, F., Determination of adenine nucleotides in soil by ion-paired reverse-phase high-performance liquid chromatography, 345
Balandreau, J., see Heulin, T., 163
Barki, M., see Rosenberg, M., 253
Basri, N., see Samad, M.Y.A., 51
Beattie, G.A. and Handelsman, J., A rapid method for the isolation and identification of *Rhizobium* from rood nodules, 29
Blackburn, T.H., see Lund, B.Aa., 297
Borrego, J.J., see Avila, M.J., 175
Bradshaw, D.J., McKee, A.S. and Marsh, P.D., The use of defined inocula stored in liquid nitrogen from mixed culture chemostat studies, 123
Burke, Jr., W.F., see Taylor, L.D., 35
Busscher, H.J., see Sjollema, J., 73

Candanoza, C., see Mills, C.K.
Ciurana, B., see Merino, S., 287
Cornax, R., see Avila, M.J., 175
Cunha, B.A., see Domenico, P., 211

David, A.W. and Paul, J.H., Enumeration and sizing of aquatic bacteria by use of a silicon-intensified target camera linked-image analysis system, 257
Diedrich, D.L., see Domenico, P., 211
Domenico, P., Diedrich, D.L. and Cunha, B.A., Quantitative extraction and purification of exopolysaccharides from *Klebsiella pneumoniae*, 211

Eribo, B.E., see Lall, S.D., 195

Fallon, R.D. and Newell, S.Y., Use of ELISA for fungal biomass measurement in standing-dead *Spartina alterniflora* Loisel, 239
Ferguson, Jr., D.A., see Veringa, E.M., 99
Ferreira, V., see Mills, C.K.
Fliermans, C.B., see Phelps, T.J., 15
Fliermans, C.B., see Phelps, T.J., 267
Fox, A., see Morgan, S.L., 57
Frederick, B.A. and Klein, D.A., Improved procedure for physiological characterization of microorganisms from diverse environments, 9

Garland, T.R., see Phelps, T.J., 267
Geesey, G., see Quintero, E., 309
Gerber, L. and Stutzenberger, F., Measurement of cAMP in *Thermomonospora curvata* by anion exchange HPLC, 41
Gherna, R., see Mills, C.K.
Gilbart, J., see Morgan, S.L., 57
Gordon, G., see Quintero, E., 309
Grehn, M. and Müller, F., The oxidase reaction of *Pasteurella multocida* strains cultured on Mueller–Hinton medium, 333

Handelsman, J., see Beattie, G.A., 29
Hedrick, D.B., see Phelps, T.J., 15
Heulin, T., Rahman, M., Omar, A.M.N., Rafidison, Z., Pierrat, J.C. and Balandreau, J., Experimental and mathematical procedures for comparing N_2 fixing efficiencies of rhizosphere diazotrophs, 163
Hood, T.A., see Taylor, B.F., 221
Hummel, W. and Hula, M.-R., Simple method for small-scale disruption of bacteria and yeasts, 201

Ishida, K., see Quintero, E., 309
Ishii, J., see Nakae, T., 151

Jay, J.M., see Lall, S.D., 195

Kawabata, N. and Nakagawa, K., Determination of microbial cell concentration based on total cellular C analysis, 337
Kitoh, S., see Uheda, E., 91
Klein, D.A., see Frederick, B.A., 9
Koch, A.L., Calculation of surface area of sacculi from low-angle light-scattering measurements, 139
Korte, F., see Bai, Q.Y., 345
Kula, M.-R., see Hummel, W., 201

Lall, S.D., Eribo, B.E. and Jay, J.M., Comparison of four methods for extracting periplasmic proteins, 195
Lambe, Jr., D.W., see Veringa, E.M., 99
Landon, S., see Mills, C.K.
LiMuti, C.M. and Paulson, T.C., Colorimetric detection of microbially excreted lysine directly on agar plates, 129
Lund, B.Aa. and Blackburn, T.H., Urea turnover in a coastal marine sediment measured by a ^{14}C-urea short-term incubation, 297
Lustman, L., see Awerbuch, T.E., 1

Marsh, P.D., see Bradshaw, D.J., 123

Mattila, T., A staining technique to measure capsular polysaccharides of *Staphylococcus aureus* on filter membranes, 323
McKee, A.S., see Bradshaw, D.J., 123
Merino, S., Ciurana, B., Sabater, E. and Tomás, J.M., A new and rapid method for the isolation of K^- isogenic mutants from *Klebsiella pneumoniae*, 287
Mills, C.K., Afable, C., Candanoza, C., Ferreira, V., Landon, S., Repaske, A., Scully, J. and Gherna, R., Comparison of the Merckoquant 10007 nitrite test strip with conventional reagents in the detection of nitrate reduction by bacteria, 233
Morgan, S.L., Fox, A. and Gilbart, J., Profiling, structural characterization, and trace detection of chemical markers for microorganisms by gas chromatography-mass spectrometry, 57
Moriñigo, M.A., see Avila, M.K., 175
Müller, F., see Grehn, M., 333

Nakae, T., Yoneyama, H. and Ishii, J., A simple method for determining the outer membrane permeability of gram-negative bacteria in intact cells, 151
Nakagawa, K., see Kawabata, N., 337
Newell, S.Y., see Fallon, R.D., 239

Omar, A.M.N., see Heulin, T., 163

Paul, J.H., see David, A.W., 257

Paulson, T.C., see LiMuti, C.M., 129
Pfiffner, S.M., see Phelps, T.J., 267
Phelps, T.J., Fliermans, C.B., Garland, T.R., Pfiffner, S.M. and White, D.C., Methods for recovery of deep terrestrial subsurface sediments for microbiological studies, 267
Phelps, T.J., Hedrick, D.B., Ringelberg, D., Fliermans, C.B. and White, D.C., Utility of radiotracer activity measurements for subsurface microbiology studies, 15
Pierrat, J.C., see Heulin, T., 163
Piret, J.M., see Awerbuch, T.E., 1
Pope, L.A., see Taylor, B.F., 221
Portnoy, S., see Rosenberg, M., 253

Quintero, E., Ishida, K., Gordon, G. and Geesey, G., Comparison of reduction methods for gas chromatographic–mass spectrometric identification of uronic acids in acidic polysaccharides, 309

Rafidison, Z., see Heulin, T., 163
Rahman, M., see Heulin, T., 163
Razak, C.N.A., see Samad, M.Y.A., 51
Repaske, A., see Mills, C.K.
Revsbech, N.P., Diffusion characteristics of microbial communities determined by use of oxygen microsensors, 111
Ringelberg, D., see Phelps, T.J., 15
Romero, P., see Avila, M.J., 175
Rosenberg, M., Barki, M. and Portnoy, S., A simple method for estimating oral microbial levels, 253

Sabater, E., see Merino, S., 287
Salleh, A.B., see Samad, M.Y.A., 51
Samad, M.Y.A., Razak, C.N.A., Salleh, A.B., Zin Wan Yunus, W.M., Ampon, K. and Basri, M., A plate for primary screening of lipase activity, 51
Scheunert, I., see Bai, Q.Y., 345
Scully, J., see Mills, C.K.
Sjollema, J., Busscher, H.J. and Weerkamp, A.H., Real-time enumeration of adhering microorganisms in a parallel plate flow cell using automated image analysis, 73
Stouthamer, A.H., see Van der Aar, P.C., 281
Stutzenberger, F., see Gerber, L., 41

Taylor, B.F., Hood, T.A. and Pope, L.A., Assay of sulfur as triphenylphosphine sulfide by high performance liquid chromatography: application to studies of sulfur bioproduction and sulfur in marine sediments, 221
Taylor, L.D. and Burke, Jr., W.F., Improved procedure for the transformation of the entomopathic *Bacillus sphaericus* 1593, 35
Tomás, J.M., see Merino, S., 287

Uheda, E. and Kitoh, S., Experimental approaches for studying adhesion of microorganisms to solid substrata: applications and mass transport, 91

Van Verseveld, H.W., see Van der Aar, P.C., 281
Van der Aar, P.C., Stouthamer, A.H. and Van Verseveld, H.W., Possible misconceptions about O_2 and CO_2 production measurements in stirred microbial cultures, 281
Verhoef, J., see Veringa, E.M., 99
Veringa, E.M., Ferguson, Jr., D.A., Lambe, Jr., D.W. and Verhoef, J., Phagocytosis of *Bacteroides* in suspension and on a glass surface determined by a modified fluorochrome assay, 99

Weerkamp, A.H., see Sjollema, J., 73
White, D.C., see Phelps, T.J., 15
White, D.C., see Phelps, T.J., 267

Yoneyama, H., see Nakae, T., 151

Zelles, L., see Bai, Q.Y., 345
Zin Wan Yunus, W.M., see Samad, M.Y.A., 51

Subject index

Acetylene reduction assay, 163
Acidic polysaccharide, 309
Actinomycete, 41
Activity measurement, 15
Adenine nucleotide, 345
Anabaena azollae, 91
Analytical pyrolysis, 57
Antibiotics, 1
Aquifer, 15
Aseptic, 267
Azospirillum, 163

Bacillus sphaericus, 35
Bacterial adhesion, 73, 79
Bacterial deposition, 73, 79
Bacterial polysaccharide, 211
Bacterium, 9, 57, 111, 201
Bacteroides, 99
Biofilm, 111
Biotechnology, 221

^{14}C, 297
Capsular polysaccharide, 287, 323
Capsule, 211
Cationic detergent, 211
Cell disruption, 201
Cell enumeration, 73
Cellulose, 41
Chemical marker, 57
Chemostat, 123
CO_2 consumption, 281
Coliform, 175
Competition, 29
Convective diffusion, 79
Coring, 267
Cyclic AMP, 41
Cytochrome c, 333

Defined inoculum, 123
Derivatization, 57, 345
Diffusion, 111
Diffusion bioassay, 1
Disc test, 1

Ecology, 123
ELISA, 239
Enterobacter, 163
Enumeration method, 175

Flow cell, 73, 79
Fluorescence HPLC, 345
Fluorochrome assay, 99
Fungus, 239

Gas chromatography, 57
Glass bead, 201
Glutamine synthetase, 91
Glycocalyx, 323
Gram-negative rod, 139

HPLC, 41, 221

Image analysis, 73, 257
Inoculum storage, 123
Interaction potential, 79
Intracellular enzyme, 201
Isotope dilution, 297

K^- isogenic mutant, 287
Klebsiella pneumoniae, 287
Kovacs oxidase test, 333

Legume, 29
Lipase, 51
Lipopolysaccharide, 211
Low-angle light-scattering, 139
Lysine oxidase, 129
Lysine plate assay, 129

Mass spectrometry, 57
Mass transport, 79
Mean surface area, 139
Merckoquant, 233
Method, 253
Methylene blue, 253
MIC, 1
Microbial cell concentration, 337
Microbial community, 9
Microbial culture, 281
Microbial plate screen, 129
Microbiology, 267
Microelectrode, 111
Microsensor, 111
Milk, 253
Mineralization, 15
Mixed cultures, 123
Modeling, 111
Mosquitocidal, 35
Mueller–Hinton medium, 333
Multiwell test, 9

N_2 fixation, 163
Nitrate reduction, 233
Nitrite test strip, 233
Nodule, 29

O_2 production, 281

O_2, 111, 253
Opsonization, 99
Oral microorganisms, 253
Outer membrane, 151

Pasteurella multocida, 333
Péclet number, 79
Periplasmic protein, 195
Permeability, 151
Phaeosphaeria typharum, 239
Phosphodiesterase, 41
Photosynthetic bacterium, 221
Physiological diversity, 9
Plasmid, 35, 211
Plate assay, 51
Polymorphonuclear leukocyte, 99
Pore, 151
Protoplast, 35
Pseudomonas aeruginosa, 151

Reduction, 309
Regeneration medium, 35
Rhizobium leguminosarum bv. *phaseoli,* 29
Rice, 163

Sacculi, 139
Screening, 163, 201
Sediment, 111, 221, 297
Shear stress, 79
Sherwood number, 79
Simple diffusion, 151
SIT camera, 257
Slime, 323
Soil, 9, 345
Spartina alterniflora, 239
Staining technique, 323
Staphylococcus aureus, 323
Subsurface sediment, 267
Sulfate reducer, 221
Sulfur, 221
Subsurface sediment, 15
Surface phagocytosis, 99
Suspension phagocytosis, 99

Total C analysis, 337
Total cellular C, 337
Transformation, 35
Tween, 51

Urea, 297
Urea turnover, 297
Uronic acid, 309

Water pollution, 175

Yeast, 201